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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/294,563	04/20/1999	KURT E. SCHMIDT	08640/018001	6271

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TERADYNE, INC  
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BOSTON, MA 02118

EXAMINER

NGUYEN, DUC MINH

ART UNIT PAPER NUMBER

2643

DATE MAILED: 06/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/294,563

Applicant(s)

SCHMIDT ET AL.

Examiner

Duc Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19, 21-27, 30, 31 and 33-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-19, 21-23, 26, 27 and 34-52 is/are allowed.
- 6) ☒ Claim(s) 24, 31 and 53-57 is/are rejected.
- 7) ☒ Claim(s) 22, 23, 25, 27, 30 and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

2. Claim 24 is rejected under 35 U.S.C. 102(e) as being anticipated by Eichen et al (6,292,539).

Consider claim 24. Eichen teaches a method of marketing telephone lines to customers, comprising speed pre-qualifying a plurality of customer lines from one-ended electrical measurements, the speed pre-qualifying including classifying the lines for at least high speed digital service or low speed digital service (see the entire abstract; col. 3, ln. 6-21; col. 4, ln. 59 to col. 7, ln. 30; especially, col. 5, ln. 22-33; col.6, ln. 25-60; col. 1, ln. 20-41). Eichen further inherently teaches selectively offering the high speed service to at least a portion of the customers having lines qualified to support high speed digital service. Eichen further inherently teaches the test unit is switchably connected to the plurality of customer lines, since the testing process is performed based on a unique identifier, i.e., a telephone directory number, or any other unique identifier such as an IP address or a circuit identifier (col. 4, ln. 59 to col. 5, ln. 8).

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3. Claims 53-54 are rejected under 35 U.S.C. 102(b) as being anticipated by Bjork et al (5,128,619).

Consider claim 53. Bjork teaches a method of detecting a bridged tap in a customer line, comprising making one ended electrical measurements over a range of frequencies on the customer line (pulse width of 100ns  $\approx$  33kHz and 1000ns  $\approx$  333kHz; col. 3, ln. 31 to col. 4, ln. 2); determining one or more admittances as a function of frequency of the customer line from the measurements (col. 3, ln. 15 to col. 5, ln. 27; col. 5, ln. 45-66); and detecting that the customer line has a bridged tap in response to finding a signature of a bridged tap in the one or more admittances as a function of frequency (col. 3, ln. 15 to col. 5, ln. 27; col. 5, ln. 45-66).

Consider claim 54. Bjork further teaches the method is used in qualifying a line for high speed data services (see the entire abstract) and the one-ended measurements are made at a frequency (pulse width of 100ns  $\approx$  33kHz and 1000ns  $\approx$  333kHz; col. 3, ln. 31 to col. 4, ln. 2) below the frequency of the high speed data services signals (an exemplary xDSL service may be present from 25 kHz to approximately 2.2 MHz, depending on the definition of "x").

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beierle (6,084,946) incorporated with Harris Model 105A in view of Bjork et al (5,128,619).

Consider claim 31. Beierle incorporated with Harris Model 105A teaches a system for characterizing performance of customer lines for data transmission, comprising a computer (e.g., model 105A and model 107A/F funnel data to larger computer systems so the data can be organized and analyzed, see page 8); a telephone switch (see page 7, MODEL 105A/107A/F description) coupled to a portion of the lines and adapted to connect the portion to a network, to perform one-ended electrical measurements on the portion, and to transmit the measurement to the computer (see diagram D; see page 7); a measurement unit (model 105A) coupled to the switch and the computer (see diagram D), the unit to make the measurements on a selected line at a lower frequency (Beierle, 20-30 Hz; col. 2, ln. 47-58) in response to receiving a command from the computer (e.g., it (model 105A) may be operated remotely from a terminal, or accessed by a technician from the field; see page 7), the computer to predict data rates at a higher frequency for the selected line from the measurement (typically, Plain Old Telephone Service (POTS) exists in the 0-4 kHz region, an exemplary xDSL service may be present from 25 kHz to approximately 2.2 MHZ, depending on the definition of "x"), the computer being further adapted to predict whether the selected line is disqualified for data transmission from the measurements thereon (it (model 105A) can also pre-qualify lines for new services, such as ISDN and XDSL; see page 7).

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Beierle incorporated with Harris Model 105A does not clearly teach the computer is adapted to determine a frequency dependent attenuation from the measurement.

Bjork teaches the computer (14) is adapted to determine a frequency dependent attenuation from the measurement (col. 2, ln. 52-57; col. 3, ln. 23-30; col. 3, ln. 31 to col. 34).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Bjork into the teachings of Beierle incorporated with Harris Model 105A in order to provide a test apparatus for testing cable for digital applications from one end of the cable, so as to eliminate additional personnel and reduce cost associated with determining the quality of the communication cable.

6. Claims 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjork et al (5,128,619) in view of Beierle (6,084,946).

Consider claim 55. Bjork does not clearly teach the one or more admittances (i.e., the reciprocal of the impedance) is an admittance between a wire of a customer line and ground.

Beierle further teaches the one or more admittances is an admittance between a wire of a customer line and ground (col. 1, ln. 44 to col. 2, ln. 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Beierle into the teachings of Bjork in order to provide a test apparatus for testing cable for digital applications from one end of the cable, so as

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to eliminate additional personnel and reduce cost associated with determining the quality of the communication cable.

Consider claim 56. Beierle further inherently teaches the act of making one-ended measurements performs the measurements through a voice test access of a telephony switch (e.g., the same telephone line that provides voice service).

Consider claim 57. (Beierle, Col. 8, ln. 25-42) reads on the limitations of claim 57.

***Allowable Subject Matter***

7. Claims 22-23, 25, 27, 30, 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 1-18, 19, 21-23, 26-27, 34-52 are allowed.

***Response to Arguments***

9. Applicant's arguments with respect to claims 19, 24, 26, 31, 53-57 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

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10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Nguyen whose telephone number is (703) 308-7527.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Kuntz, can be reached on (703) 305-4708.

**Any response to this final action should be mailed to:**

**BOX AF**

**Commissioner of Patents and Trademarks  
Washington, D.C. 20231**

**or faxed to:**



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**(703) 308-6306 or (703) 308-6296** (Group's Fax numbers)  
**(703) 746-7251** (Examiner's Fax number, only for proposed amendment)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

June 19, 2002



**DUC NGUYEN**  
**PRIMARY EXAMINER**